(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 22 July 2004 (22.07.2004)

PCT

(10) International Publication Number WO 2004/061402 A1

(51) International Patent Classification⁷:

G01L 5/04

(21) International Application Number:

PCT/GB2003/005614

(22) International Filing Date:

19 December 2003 (19.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0300306.8

7 January 2003 (07.01.2003) G

(71) Applicant (for all designated States except US): ROYAL MAIL GROUP PLC [GB/GB]; Royal Mail House, 148 Old Street, London EC1V 9HQ (GB).

(72) Inventors; and

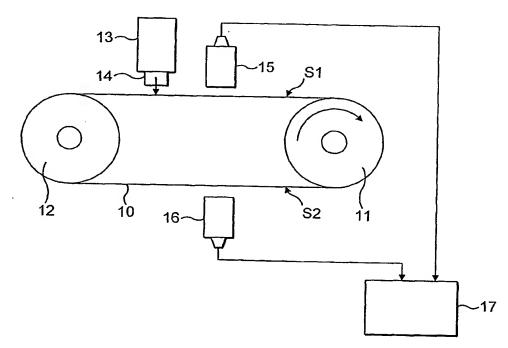
(75) Inventors/Applicants (for US only): PARKIN, Robert [GB/GB]; Mechatronics Research Centre, Holywell

Building, Holywell Way, Loughborough LE11 3UZ (GB). NOTINI, Luca [GB/GB]; Mechatronics Research Centre, Holywell Building, Holywell Way, Loughborough LE11 3UZ (GB).

- (74) Agent: PENDERED, Timothy, G.; R G C Jenkins & Co, 26 Caxton Street, London SWIH ORJ (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: BELT ASSEMBLY MONITORING SYSTEM



(57) Abstract: In a pulley and belt system, sensors (15, 16) are arranged to detect vibrations in spans (51, 52) of a belt (10) moving around pulleys (11, 12). An external excitation can be applied to the belt via a device (13) with a movable piston (14). Signals from vibrations induced in the belt spans are sent to a data processing unit (17) where they are collated and interpreted to give an analysis of belt and/or pulley condition.

WO 2004/061402 A1



Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.